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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PEREZ DAPLE, AARON C

ART UNIT PAPER NUMBER

2154

DATE MAILED: 03/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/824,639

Applicant(s)

AIKEN, JOHN A.

Examiner

Aaron C Perez-Daple

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Action is in response to Amendment filed 11/01/04, which has been fully considered.
2. Amended claims 1-24 are presented for examination.
3. This Action is FINAL.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
5. **Claims 1-24** are rejected under 35 U.S.C. 103(a) as being anticipated by Modi et al. (US 6,587,866 B1) (hereinafter Modi) in view of Goldszmidt et al. (US 6,195,680 B1) (hereinafter Goldszmidt).
6. As for claims 1, 9 and 17, Modi discloses a method of automatically providing server affinities for related concurrent connection requests in networking environments which perform workload balancing, comprising:

selectively activating an affinity for a particular server application (col. 9, line 66 – col. 10, line 46, “Fig. 6 is a...better load balancing.”; col. 15, line 29 – col. 16, line 13, “Therefore, the second...pages and connections.”);

routing a first connection request to the particular server application from a selected source (col. 9, line 66 – col. 10, line 46, “Fig. 6 is a...better load balancing.”; col. 15, line 29 – col. 16, line 13, “Therefore, the second...pages and connections.”); and

bypassing normal workload balancing operations, responsive to the selective activation, for subsequent concurrent connection requests for the particular server application from the selected source while at least one such concurrent connection request remains active (col. 9, line 66 – col. 10, line 46, “Fig. 6 is a...better load balancing.”; col. 15, line 29 – col. 16, line 13, “Therefore, the second...pages and connections.”).

Modi does not specifically disclose selectively activating an affinity *based on an activation message from the particular server application*. Goldszmidt teaches selectively activating an affinity based on an activation message from the particular server application in order to regulate affinities based on the state of the server (col. 6, lines 44-60). It would have been obvious to one of ordinary skill in the art to modify Modi by storing information for the automatic affinities responsive to receiving a selective activation message from each of one or more server applications in order to regulate affinities based on the state of the server, as taught by Goldszmidt above.

7. As for claims 2, 10 and 18, Modi discloses the method according to claims 1, 9 and 17 wherein the selected source is a selected client (clients 121-123, Fig. 1).
8. As for claims 3, 11 and 19, Modi discloses the method according to claims 2, 10 and 18 wherein the selected client is identified by its Internet Protocol ("IP") address (col. 10, line 26 – col. 11, line 3, “If the service...and service port.”).

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9. As for claims 4, 12 and 20, Modi discloses the method according to claims 2, 10 and 18, wherein the selected client is identified by its Internet Protocol ("IP") address and port number (col. 10, line 26 – col. 11, line 3, "If the service...and service port.").
10. As for claims 5, 13 and 21, Modi discloses the method according to claims 1, 9 and 17, wherein selectively activating further comprises the step of detecting an automatic affinity activation parameter on a configuration statement for the particular server application (col. 9, line 66 – col. 10, line 46, "Fig. 6 is a...better load balancing."; col. 15, line 29 – col. 16, line 13, "Therefore, the second...pages and connections.").
11. As for claims 6, 14 and 22, Modi discloses the method according to claims 1, 9 and 17, wherein the bypassing step causes the subsequent connection request messages from the selected source to be routed to an instance of the particular server application which is processing the first connection request (col. 9, line 66 – col. 10, line 46, "Fig. 6 is a...better load balancing."; col. 15, line 29 – col. 16, line 13, "Therefore, the second...pages and connections.").
12. As for claims 7, 15 and 23, Modi discloses a method of automatically routing related concurrent connection requests in a networking environment which performs workload balancing, comprising:
 - storing information for one or more automatic affinities (col. 10, line 26 – col. 11, line 3, "If the service...and service port.");
 - receiving incoming connection requests from client applications (col. 4, lines 60-63, "Clients 121-123...computing system 100."); and

routing each received connection request to a particular one of the server applications, further comprising steps of:

selecting the particular one of the server applications using the stored information for automatic affinities, when the client application sending the received connection request is identified in the stored information as having an existing connection to the particular one of the server applications and wherein one of the selective activation messages has been received from the particular one of the server applications (col. 9, line 66 – col. 10, line 46, “Fig. 6 is a...better load balancing.”; col. 15, line 29 – col. 16, line 13, “Therefore, the second...pages and connections.”); and

selecting the particular one of the server applications using workload balancing when the client application sending the received connection request is not identified in the stored information as having an existing connection to the particular one of the server applications and wherein one of the selective activation messages has not been received from the particular one of the server applications (Fig. 6; col. 10, line 26 – col. 11, line 3, “If the service...and service port.”).

Modi does not specifically disclose storing information for the automatic affinities responsive to receiving a selective activation message from each of one or more server applications. Goldszmidt teaches storing information for the automatic affinities responsive to receiving a selective activation message from each of one or more server applications in order to regulate affinities based on the state of the server (col. 6, lines 44-60). It would have been obvious to one of ordinary skill in the art to modify Modi by storing information for the automatic affinities responsive to receiving a selective activation message from each of one

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or more server applications in order to regulate affinities based on the state of the server, as taught by Goldszmidt above.

13. As for claims 8, 16 and 24, Modi discloses the method according to claims 7, 15 and 23, wherein the client application is identified as having one of the existing connections with the particular one if a destination address and destination port, as well as a source address and optionally a source port number, of the connection request being routed match the stored information (col. 3, lines 19-38, "One embodiment of...of client affinity."; col. 8, lines 6-15, "PDT 304 is...computing system 100.").

14. **Claims 7, 8, 15, 16, 23 and 24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Modi in view of Devarakonda et al. (US 6,424,992 B1) (hereinafter Devarakonda).

15. As for claims 7, 15 and 23, Modi discloses a method of automatically routing related concurrent connection requests in a networking environment which performs workload balancing, comprising steps of:

storing information for one or more automatic affinities (col. 10, line 26 – col. 11, line 3, "If the service...and service port.");

receiving incoming connection requests from client applications (col. 4, lines 60-63, "Clients 121-123...computing system 100."); and

routing each received connection request to a particular one of the server applications, further comprising steps of:

selecting the particular one of the server applications using the stored information for automatic affinities, when the client application sending the received connection request is identified in the stored information as having an existing connection to the particular one and

wherein one of the selective activation messages has been received from the particular one (col. 9, line 66 – col. 10, line 46, “Fig. 6 is a ...better load balancing.”; col. 15, line 29 – col. 16, line 13, “Therefore, the second...pages and connections.”); and

selecting the particular one of the server applications using workload balancing otherwise (Fig. 6; col. 10, line 26 – col. 11, line 3, “If the service...and service port.”).

Although arguably inherent to Modi, Modi does not specifically disclose storing information for the automatic affinities responsive to receiving a selective activation message from each of one or more server applications. Devarakonda teaches storing information for the automatic affinities responsive to receiving a selective activation message from each of one or more server applications in order to regulate affinities (col. 6, lines 5-12, “According to yet...is turned off”). It would have been obvious to one of ordinary skill in the art to modify Modi by storing information for the automatic affinities responsive to receiving a selective activation message from each of one or more server applications in order to regulate affinities, as taught by Devarakonda above.

16. As for claims 8, 16 and 24, Modi discloses the method according to claims 7, 15 and 23, wherein the client application is identified as having one of the existing connections with the particular one if a destination address and destination port, as well as a source address and optionally a source port number, of the connection request being routed match the stored information (col. 3, lines 19-38, “One embodiment of...of client affinity.”; col. 8, lines 6-15, “PDT 304 is...computing system 100.”).

Response to Arguments

Claim Objections

17. Objections to claims 15 and 23 are hereby withdrawn in view of Amendment.

112 Claim Rejections

18. The rejections of claims 7, 8, 15, 16 and 24 under 35 USC 112, second paragraph, are hereby withdrawn in view of Amendment.

Double Patenting

19. The provisional rejection of claims 1-24 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-37 of copending Application No. 09/825071 is hereby withdrawn in view of the Terminal Disclaimer filed 11/01/04.

102 Claim Rejections

20. Applicant's arguments filed 11/01/04 have been fully considered but they are moot in view of new grounds of rejection.

103 Claim Rejections

21. The rejection of claims 7, 8, 15, 16, 23 and 24 as unpatentable over Modi in view of Abramson is hereby withdrawn in view of Amendment and arguments found on pages 12-14 of the Remarks, which are persuasive with respect to deficiencies in the Abramson reference.
22. Applicant did not make any response to the rejection of claims 7, 8, 15, 16, 23 and 24 as unpatentable over Modi in view of Devarakonda. This rejection is hereby maintained.

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23. With respect to the Modi reference, Applicant asserts on pages 11-12 of the Remarks that Modi fails to teach that a portion of the system can change from a 'non-affinity policy' into an 'affinity policy' for a source. This argument is moot, because this limitation is not found in the claims.

The claims actually recite "selectively activating an affinity for a particular server application based on an activation message from the particular server application." The Examiner finds that Modi discloses this limitation of the claims. Modi further teaches selecting a particular server application using stored affinity information when the client application that sends a connection request is identified as having an existing connection to the particular server application, contrary to Applicant's assertion on page 13 of the Remarks.

Specifically, as illustrated in Fig. 6 and described in col. 9, line 66 – col. 10, line 63, the server first makes a determination as to whether or not the requested service requires client-affinity (steps 603 and 605). If the service is a client-affinity type, then the server tests whether the affinity has already been established (step 609). If it has not already been established, then the affinity is started in steps 612-614. The affinity information is stored in the forwarding list (step 610). The Examiner particularly points out that multiple requests from the same client could be treated differently (i.e. affinity or non-affinity) depending on the type of service requested by the client. Thus, the Examiner interprets that steps 603, 605, and 609, both independently and together, comprise "selectively activating an affinity for a particular server application." Modi does not explicitly disclose receiving an activation

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message from the particular server application. This limitation is taught by Goldszmidt, as detailed in the 103 rejection above.

Therefore, claims 1-24 are properly rejected under 35 USC 103(a).

Conclusion

24. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron C Perez-Daple whose telephone number is (571) 272-3974. The examiner can normally be reached on 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 3/8/05

Aaron Perez-Daple

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